

of the reproducing process is supplied from the operation input unit 23 of the apparatus 20.

In the flowchart shown in Fig. 9, the control part 21 of the in-vehicle audio information reproducing apparatus 20 sets the number (N) of data transferred through the data transfer media, that is, through the memory 30 into a register of the memory unit 22 (step S21). The number (N) of data denotes the total number of music pieces included in the transferred reproducing order data. If the additional writing data is included in the transfer data, further, the number of music pieces included in the additional writing data is also included in the number (N).

In next step S22, the control part 21 executes an initializing process for setting a transfer data search pointer n (hereinafter, referred to as a pointer n) to  $n = 1$ . The pointer n is an index for searching the transferred data. The edition number, memory address, attribute data, and the like included in the transferred data are collected as one data group corresponding to one music piece. The pointer n can be regarded as a count register when used as a measure to search for one transferred data group in such data groups.

When the data group represented by the pointer n is extracted from the transfer data, the control part 21 first examines the edition No. existing at the head of the data group and discriminates whether this edition No. is a general edition number or not (step S23). The general

edition number denotes an edition No. shown by an Arabic numeral allocated to each reproducing order data in Figs. 5 to 7. The edition number other than the general edition numbers denotes an edition No. shown by a Roman numeral allocated to each music piece included in the additional writing data in Fig. 7. The reason why the distinction as mentioned above is provided is to discriminate whether the data group subsequent to the edition No. is the mere reproducing order data or the additional writing data.

The Arabic numerals and Roman numerals showing the edition Nos. in Figs. 5 to 7 are a mere simile for explaining the discriminating process. In the actual system, for example, the above discrimination can be also made based on a difference of encoding codes of numerals indicative of the edition numbers or the like.

In step S23, if the edition No. is the general edition No., that is, if it is the Arabic numeral, since the data group subsequent to the edition No. is the reproducing order data, the control part 21 reads the data such as memory address, music piece name, and the like from the data group shown by the search pointer (step S24) and collates them with the management data stored on the hard disk 25 (step S25). If there is no error or the like in a collation result, the control part 21 reads out the music piece data stored in the memory address on the hard disk 25 and reproduces it (step S26).

In step S23, if the edition No. indicated by the

search pointer n is the edition No. shown by the Roman numerals, this means that the data group indicated by the pointer n is the additional writing data. The control part 21, therefore, stores the data group subsequent to the above edition number. onto the hard disk 25 in accordance with the memory address included in the data group (step S27). The processing routine advances to step S28.

In step S28, the control part 21 increments the value of the pointer n ( $n = n+1$ ) and, thereafter, compares the total number (N) of transfer data which has been set into the register in step S21 with the value of the pointer n (step S29). When the value of the pointer n is equal to or less than N, the control part 21 returns to step S23 and repeats the above processes, since this means that the processes of all of the transferred data are not completed yet. If the value of the pointer n is equal to N, the present subroutine is finished, since this means that the processes of all of the transferred data have been completed.

As described above, according to the present system, merely by transferring the music piece reproducing order formed by the music piece data managing apparatus 10 to the in-vehicle audio information reproducing apparatus 20 through the memory 30, the order of reproduction of the music pieces in the apparatus can be easily changed. Therefore, with respect to the music piece data stored on the hard disk 25 of the in-vehicle audio information